Novel Biomarkers for Detection of Early Onset Neonatal Sepsis  
**OCR Number:** OCR 5151

**Description:**

- Infection-induced preterm birth significantly raises the risk of the newborn developing early onset neonatal sepsis (EONS) and represents a significant contributor to morbidity and mortality worldwide.
- Premature newborns represent about 11% of the approximately 4 million live births in the US annually and are most susceptible to developing EONS.
- The standard of care is empiric antibiotherapy based upon minimal symptomatic suspicions, but this poses undue risks to the newborn.
- Using proteomic analyses, Yale researchers have identified biomarkers in cord blood samples that correlate with the development of EONS.
- OCR5151 is a simple, quick and accurate test for the assessment of EONS that permits earlier treatment of those newborns at higher risk, but also avoids unnecessary treatment of newborns at no risk.
- This diagnostic test can be easily incorporated into routine newborn testing, as cord blood sampling is used to monitor cord blood gases at delivery.

**Stage of Development:** Biomarkers have been identified from clinical samples that correlate with development of EONS. Assay development and optimization work has been initiated.

**Published/Issued Patents:** [U.S. Patent No. 8,697,367](https://www.uspto.gov/inventors/patents-application-number-lookup).  
**Published/Issued Patents:** [PCT App. Pub. No. WO2010087985](https://www.wipo.int/pctdb/en/)

**Publications:**  

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